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MAR 31 2006
PATENT & TRADEMARK OFFICE

Attorney Docket No: IMMR-064/00US **PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Danny GRANT

Examiner: Unassigned

Serial No. 10/758,599

Art Unit: 2837

Confirmation No.: 5397

COPY

Filed: January 16, 2004

For: **METHOD AND APPARATUS FOR PROVIDING HAPTIC FEEDBACK HAVING A POSITION-BASED COMPONENT AND A PREDETERMINED TIME-BASED COMPONENT**

U.S. Patent and Trademark Office
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INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97(b)

In accordance with the duty of disclosure set forth in 37 C.F.R. §1.56, Applicant(s) hereby submits the following information in conformance with 37 C.F.R. §§1.97 and 1.98.

[x] Pursuant to 37 C.F.R. §1.98, a copy of each document cited in the attached Form PTO/SB/08 is provided on the enclosed CD.

[] No copies of the publications listed on the attached Form PTO/SB/08A are being provided pursuant to 37 C.F.R. §1.98(d) because the publications were previously cited by or submitted to the Office in prior Application Serial No. _____ to which the above-identified application claims priority under 35 U.S.C. §120.

[] No copies of any U.S. patents or U.S. patent application publications listed on the attached Form PTO/SB/08A are being provided pursuant to 37 C.F.R. §1.98 because this application was filed after June 30, 2003.

[] Publication(s) ___ listed on the attached Form PTO/SB/08A were cited in a foreign search or examination report corresponding to ___ application serial no. and mailed on ___.

[] Enclosed is a copy of a non-English publication(s) ___. Pursuant to §609 of the M.P.E.P., Applicant submits the attached foreign search or examination report, which cites such non-English language publication(s).

[] Enclosed is a copy of a non-English publication(s) ___. English language publication ___ (copy enclosed) claims priority from this non-English publication.

[] Enclosed is an explanation of non-English publication(s) ___ for which an English translation is not available.

[] Enclosed is an English translation of non-English publication(s) ___cited in the attached Form PTO/SB/08A.

[] Enclosed is a copy of pending patent Application Serial No. ___.

This Information Disclosure Statement is filed within any one of the following time periods:

[] within three months from the filing date of this national application other than a CPA under 37 C.F.R. § 1.53(d);

[] within three months from the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in this international application;

[x] before the mailing date of a first office action on the merits; or

[] before the mailing of a first office action after the filing of a request for continued examination under 37 C.F.R. § 1.114.

It is respectfully requested that the Examiner consider the above-noted information and return an initialed copy of the attached Form PTO/SB/08A to the undersigned.

Dated: June 21, 2004

Respectfully submitted,
COOLEY GODWARD LLP

By: _____
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 10

Complete If Known	
Application Number	10/758,599
Filing Date	January 16, 2004
First Named Inventor	Danny Grant
Art Unit	2837
Examiner Name	
Attorney Docket Number	IMMR064/00 US

U.S. PATENT DOCUMENTS

Examiner	Cite No.[1]	Document Number Number Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		2,972,140	2/14/1961	Hirsch	
		3,157,853	11/17/1964	Hirsch	
		3,220,121	11/30/1965	Cutler	
		3,497,668	2/24/1970	Hirsch	
		3,517,446	6/30/1970	Corlyon et al.	
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		3,911,416	10/7/1995	Feder	
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		4,891,764	1/2/1990	McIntosh	
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		4,949,119	08/1990	Moncrief et al.	
		5,019,761	5/28/1991	Kraft	
		5,022,384	6/11/1991	Freels	

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		5,022,407	6/11/1991	Horch et al.	
		5,035,242	7/30/1991	Franklin	
		5,038,089	8/6/1991	Szakaly	
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		5,437,607	8/1/1995	Taylor	
		5,451,924	09/1995	Massimino et al.	
		5,466,213	11/14/1995	Hogan	

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		5,506,605	04/1996	Paley	
		5,542,672	08/1996	Meredith	
		5,547,382	8/20/1996	Yamasaki	
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Sheet 4 of 10

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		5,897,437	04/1999	Nishiumi et al.	
		5,912,661	06/1999	Siddiqui	
		5,914,705	06/1999	Johnson et al.	
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		6,469,692	10/2002	Rosenberg	
		6,563,487	05/2003	Martin et al.	

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Sheet 5 of 10

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		Country Code[3]	Number[4]	Kind Code[5] (if known)			
		EP	0349086		1/3/1990	Stork Kwant B.V.	
		JP	H2-185278		7/19/1990	Taito Corporation	
		JP	H4-8381		1/13/1992	Epoch Co. and Key-Planning Co.	
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		JP	H5-192449		8/3/1993	Taito Corporation	
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		EP	0 607 580 A1		07/1994		
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		WO	WO 97/31333		08/1997		
		WO	WO 00/03319		01/2000		

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
		BAIGRIE, "Electric Control Loading - A Low Cost, High Performance Alternative," *Proceedings of Interservice/Industry Training Systems Conference*, pp. 247-254, November 6-8, 1990.	
		IWATA, "Pen-based Haptic Virtual Environment," 0-7803-1363-1/93 IEEE, pp 287-292, 1993.	
		RUSSO, "The Design and Implementation of a Three Degree of Freedom Force Output Joystick," MIT Libraries Archives, pp. 1-131, May 1990, archived 08/14/1990.	
		BROOKS et al., "Hand Controllers for Teleoperation - A State-of-the-Art Technology Survey and Evaluation," JPL Publication 85-11; NASA-CR-175890; N85-28559, pp. 1-84, 03/1/1985.	
		JONES et al., "A perceptual analysis of stiffness," ISSN 0014-4819 Springer International (Springer-Verlag); *Experimental Brain Research*, Vol. 79, No. 1, pp. 150-156, 1990.	
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		SNOW et al., "Model-X Force-Reflecting-Hand-Controller," NT Control No. NPO-17851; JPL Case No. 7348, pp. 1-4, with 45 pages of attachments, 06/15/1989.				
		OUH-YOUNG, "Force Display in Molecular Docking," Doctoral Dissertation, University of North Carolina at Chapel Hill, UMI Order No. 9034744, pp. 1-369, 1990.				
		TADROS, "Control System Design for a Three Degree of Freedom Virtual Environment Simulator Using Motor/Brake Pair Actuators, *MIT Archive*, pp. 1-88, February 1990, archived 8/13/90.				
		CALDWELL et al., "Enhanced Tactile Feedback (Tele-Taction) Using a Multi-Functional Sensory System," 1050-4729/93, pp. 955-960, 1993.				
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		GOTOW et al., "Controlled Impedance Test Apparatus for Studying Human Interpretation of Kinesthetic Feedback," WA11-11:00, pp. 332-337.				
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		KONTARINIS et al., "Display of High-Frequency Tactile Information to Teleoperators," *Telemanipulator Technology and Space Telerobotics*, Won S. Kim, Editor, Proc. SPIE Vol. 2057, pp. 40-50, Sep. 7-9, 1993.				
		PATRICK et al., "Design and Testing of A Non-reactive, Fingertip, Tactile Display for Interaction with Remote Environments," *Cooperative Intelligent Robotics in Space*, Rui J. deFigueiredo et al., Editor, Proc. SPIE Vol. 1387, pp. 215-222, 1990.				
		ADELSTEIN, "A Virtual Environment System For The Study of Human Arm Tremor," *Ph.D. Dissertation*, Dept. of Mechanical Engineering, MIT, June 1989, archived 3/13/90.				
		BEJCZY, "Sensors, Controls, and Man-Machine Interface for Advanced Teleoperation," Science, Vol. 208, No. 4450, pp. 1327-1335, 1980.				
		BEJCZY et al., "Generalization of Bilateral Force-Reflecting Control of Manipulators," *Proceedings Of Fourth CISM-IFToMM*, Sep. 8-12, 1981.				
		MCAFFEE, "Teleoperator Subsystem/Telerobot Demonsdtrator: Force Reflecting Hand Controller Equipment Manual," *JPL* D-5172, January 1988.				
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Examiner Name	
Attorney Docket Number	IMMR064/00 US

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Sheet 8 of 10

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